



# GASTROENTERITIS, VIRAL (Outbreaks only)

(Both epidemic and sporadic viral gastroenteritis. See also **FOODBORNE DISEASE**)

1. **Agent:** Noroviruses—formerly named Norwalk-like viruses (NLV)—a family of serologically related viruses; rotaviruses; astroviruses; enteric adenoviruses; other viruses.

2. **Identification:**

a. **Symptoms:** Symptoms may vary by etiologic agent and population; see [Appendix B](#) for details. [MMWR Guidelines for Confirmation of Foodborne-Disease Outbreaks.\*]

**Norovirus:** Nausea, vomiting, diarrhea, abdominal pain, headache, and low-grade fever lasting about 24-48 hours. Present in children and adults.

**Rotavirus:** Diarrhea, vomiting and fever, often in infants and young children. Often leads to significant dehydration.

b. **Differential Diagnosis:** See [Appendix B](#)

3. **Incubation:** Varies by agent; See [Appendix B](#).

4. **Reservoir:**

a. **Noroviruses:** Man.

b. **Rotavirus:** Probably man.

c. **Other viruses:** Probably man.

5. **Source:** Norovirus: feces and vomitus of infected individuals; Rotavirus: feces and potentially respiratory secretions of infected individuals.

6. **Transmission:** Noroviruses are found in the stool (feces/poop) or vomit of infected people. People can become infected by ingestion of the virus in several ways, including:

a. Eating food or drinking liquids that are contaminated with norovirus.

b. Touching surfaces or objects contaminated with norovirus, and then placing their hand in their mouth

c. Having direct contact with another person who is infected and showing symptoms (for example, when caring for someone with illness, or sharing foods or eating utensils with someone who is ill)

d. Persons working in day-care centers, elderly residential facilities, or skilled nursing homes should pay special attention to children or residents who have gastrointestinal illness. Norovirus is very common in these settings. Due to high contagiousness, a single case can spread illness rapidly throughout such environments.

7. **Communicability:** During the acute stage of disease while virus shedding continues. May continue for days after recovery.

8. **Specific Treatment:** None. For dehydrated patients, implement supportive treatment with correction of fluid and electrolyte deficits.

9. **Immunity:**

a. **Norovirus:** Short-term immunity lasting up to 14 weeks.

b. **Rotavirus:** By three years of age most individuals are immune. Vaccines for infants were approved in 2006 and 2008.

c. **Other viruses:** Short-term immunity may occur.

## REPORTING PROCEDURES

1. Individual cases not reportable. Outbreaks reportable, *California Code of Regulations*, Section 2502.

**Note:** Investigated by CHS: Outbreaks in sub-acute health care facilities (SNF) and other community outbreaks.

Investigated by ACDC: Outbreaks in acute care facility/hospital settings and outbreaks transmitted via commercial food or recreational, drinking water.

\* CDC. Appendix B: Guidelines for confirmation of foodborne-disease outbreaks. MMWR 2006; 55(SS11):38–42. Available at: [www.cdc.gov/mmwr/preview/mmwrhtml/ss5510a3.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5510a3.htm)



2. **Report Form:** Depends upon mode of transmission or outbreak location see Table 1.  
*For Gastrointestinal outbreaks, final reports only, no interim epi report forms needed*

## CHS INVESTIGATED SITUATIONS

For sub-acute health care facility (SNF)  
[CD OUTBREAK INVESTIGATION-SUB-ACUTE HEALTH CARE FACILITY \(H-1164-Sub-Acute\)](#)

[CD OUTBREAK INVESTIGATION SUB-ACUTE HEALTH CARE FACILITY \(INSTRUCTIONS\)](#)

[Gastrointestinal Illness Outbreak Linelist – Patients and Employees \(12/12\)](#)

All other settings:  
[OUTBREAK/UNUSUAL DISEASE REPORT \(CDPH 8554\)](#)

## ACDC INVESTIGATED SITUATIONS

For acute care facility (hospital)  
[CD OUTBREAK INVESTIGATION—ACUTE HEALTH CARE FACILITY \(HOSPITAL\)\(H-1164\) \(ACDC Use Only\)](#)

For Foodborne:  
[FOODBORNE DISEASE OUTBREAK REPORT \(CDPH 8567\)](#)

### [INSTRUCTIONS FOR CDPH 8567 FORM](#)

If a prepared commercial food item is the **LIKELY** source of this infection, a [FOODBORNE INCIDENT REPORT](#) (FBIR) should be filed.

Available at:  
[https://www.visualcmr.net/webvcmr/pages/public/pub\\_FBI\\_Report.aspx](https://www.visualcmr.net/webvcmr/pages/public/pub_FBI_Report.aspx).

For likelihood determination and filing procedures, see Part 1, Section 7 in this manual - Reporting of a Case or Cluster of Cases Associated with a Commercial Food: Filing of Foodborne Incident Reports.  
<http://publichealth.lacounty.gov/acd/procs/b73/B73p1.pdf>

For waterborne:

## CDC NORS-Waterborne Diseases Outbreak Report Form (CDC 52.12) (See [Form Instructions](#)):

- [Treated Recreational Water](#)
- [Untreated Recreational Water](#)
- [Water Intended for Drinking](#)
- [Water Not Intended for Drinking or Water of Unknown Intent](#)

### 3. Epidemiologic Data:

- a. Identify additional cases among persons attending a common gathering or setting. In common point-source outbreak situations, look for secondary cases, especially in households.
- b. Possible food and water (potable, recreational) sources.

## CONTROL OF CASE, CONTACTS & CARRIERS

Investigate outbreaks within 24 hours.

### CASE:

**Precautions:** Enteric precautions. Food handlers should be removed from work until 48 hours after symptoms end.

### CONTACTS:

Search for other cases among individuals at the same setting. Secondary cases may occur among household members to case. Symptomatic food handlers should be managed as a case.

## PREVENTION/EDUCATION

1. Implement hygienic measures applicable to diseases transmitted via fecal-oral route, or contaminated fomites route.
2. Prevent exposure of infants and young children to individuals with acute gastroenteritis.
3. For more information on norovirus see the ACDC website at <http://www.publichealth.lacounty.gov/acd/Norovirus.htm> and the CDC norovirus website at: <http://www.cdc.gov/norovirus/index.html>

## DIAGNOSTIC PROCEDURES



Clinical and epidemiological history will determine tests to be performed. Research laboratory protocols can identify norovirus in stools.

1. **Norovirus:** Testing is for epidemiological use only and not for diagnostic purposes. Individual results will not be released to patients. Two laboratory positive specimens are needed to confirm a diagnosis of norovirus in an outbreak situation. To maximize the potential to confirm an outbreak as norovirus, 5 specimens should be collected for a norovirus-suspected outbreak, but no more than 10.

**Test:** Norovirus reverse transcriptase by polymerase chain reaction (RT-PCR), performed by the PHL Molecular Epidemiology Unit. Positive specimens are characterized by DNA sequence analysis to determine norovirus genotype.

**Container:** Sterile, 30 oz. wide-mouth, screw-capped bottle.

**Laboratory Form:** [Norovirus Test Request Form](#)

**Note:** Check "other" box and write-in "Norovirus." As a molecular epidemiological test, Norovirus PCR and genotyping is not available for online Sunquest ordering.

**Material:** 2-3 grams whole stool (no preservatives). Obtain as soon as possible, preferably within 48 hours of onset, but no later than 7 days, while stool is still liquid or semi-solid.

**Storage:** Keep refrigerated at 4°C, not frozen, and deliver to the laboratory as soon as possible. Transport on cold pack.

**Please Note:** Selected specimens will be sent to the California Department of Public Health Viral and Rickettsial Diseases Laboratory for other viral gastrointestinal agents.



**TABLE 1. GASTROINTESTINAL DISEASE OUTBREAK FORMS**

<b>NON-HEALTHCARE FACILITY – CHS Lead (OB - designation)</b>	<b>REPORT FORM</b>
<ul style="list-style-type: none"> <li>○ Congregate-Living (e.g., jail, juvenile hall, camps, assisted living center)</li> <li>○ Community-Based (e.g., school, daycare center)</li> </ul>	<a href="#"><u>OUTBREAK/UNUSUAL DISEASE REPORT FORM (CDPH 8554)</u></a>
<b>SUB-ACUTE HEALTHCARE FACILITY – CHS Lead (HF - designation)</b>	<b>REPORT FORM</b>
<ul style="list-style-type: none"> <li>○ Skilled nursing facility</li> <li>○ Intermediate care facility</li> <li>○ Psychiatric facility</li> </ul>	<a href="#"><u>CD OUTBREAK INVESTIGATION — SUB-ACUTE HEALTH CARE FACILITY (H-1164-SubAcute)</u></a>  <a href="#"><u>CD OUTBREAK INVESTIGATION SUB-ACUTE HEALTH CARE FACILITY (INSTRUCTIONS)</u></a>  <a href="#"><u>GASTROINTESTINAL ILLNESS OUTBREAK LINELIST HEALTH CARE FACILITY</u></a>
<b>FOODBORNE INCIDENT - ACDC Lead</b>	<b>REPORT FORM</b>
<p>Illness associated with a commercially available food item</p>	<a href="#"><u>FOODBORNE DISEASE OUTBREAK REPORT FORM (CDPH 8567)</u></a>  <a href="#"><u>INSTRUCTIONS FOR CDPH 8567 FORM</u></a>
<b>WATERBORNE INCIDENT – ACDC Lead</b>	<b>REPORT FORM</b>
<p>Illness associated with drinking water or recreational water exposure.</p>	<p>CDC NORS-Waterborne Diseases Outbreak Report Form (CDC 52.12) (See <a href="#"><u>Form Instructions</u></a>):</p> <ul style="list-style-type: none"> <li>-<a href="#"><u>Treated Recreational Water</u></a></li> <li>-<a href="#"><u>Untreated Recreational Water</u></a></li> <li>-<a href="#"><u>Water Intended for Drinking</u></a></li> <li>-<a href="#"><u>Water Not Intended for Drinking or Water of Unknown Intent</u></a></li> </ul>

